

IN THE CLAIMS

1 (Currently Amended). A system comprising:
a speech recognizer that recognizes spoken requests for television programming information;
a state machine having three states including a first state in which the state machine is not listening, a second state in which the state machine listens for only one query, and a third state in which it is listening to all queries; and
using the listen state machine to provide inputs to said speech recognizer, wherein if the user makes a new utterance while the state machine is in the third state and is working on a previous utterance by the user, the state machine stops working on the user's previous utterance and begins working on the user's new utterance.

Claims 2 and 3 (Canceled).

4 (Previously Presented). The system of claim 31 including a memory that stores an indication when a attribute recognized by the speech recognizer is spoken by the speech synthesizer.

5 (Previously Presented). The system of claim 31 wherein said module produces a select variable and a where variable from a query received from a user.

6 (Previously Presented). The system of claim 31 wherein said module develops a meaning derived from said speech recognizer and historical information about previously recognized speech and uses the historical information to modify the meaning derived from said speech recognizer.

7 (Original). The system of claim 6 wherein said module determines whether a query includes both a first and a second type of variable and if so, does not use the historical information to alter the meaning derived from a the speech recognizer.

8 (Original). The system of claim 7 wherein said module determines whether only one of two variable types is contained in a spoken request and if so, merges a variable with historical information to derive a meaning from the request.

9 (Previously Presented). The system of claim 31 wherein said module parses and stores time attributes in a request.

10 (Original). The system of claim 9 wherein said module forms time attributes with time ranges.

11 (Original). The system of claim 1 further including a processor coupled to a speaker and microphone, the output from said speaker being subtracted from the output of said microphone to reduce interference between the audio portion of a television program and a spoken request.

12 (Original). The system of claim 1 including a television coupled to a set-top box and a remote control that controls said set-top box.

13 (Previously Presented). The system of claim 31 wherein said output device is a speech synthesizer that generates voice responses.

14 (Currently Amended). A method comprising:
providing a listen state machine having three states including a state in which the state machine is not listening, a state in which the state machine is listening only for a single query, and a state in which the state machine is listening to all queries, wherein if the user makes a new utterance while the state machine is in the third state and is working on a previous utterance by the user, the state machine stops working on the user's previous utterance and begins working on the user's new utterance;
providing the spoken inputs from said listening state machine to a speech recognizer; and
recognizing spoken requests for television programming information.

Claims 15 and 16 (Canceled).

17 (Previously Presented). The method of claim 32 including storing an indication when a generated response includes a recognized attribute from the spoken request.

18 (Previously Presented). The method of claim 32 including parsing a select variable and a where variable from a spoken request.

19 (Previously Presented). The method of claim 32 including storing meanings derived from current and historical requests and using the historical requests to supplement the meaning derived from said current requests.

20 (Previously Presented). The method of claim 32 including parsing and storing time attributes in a request.

21 (Previously Presented). The method of claim 32 further including subtracting a signal from a television from the input from the use to reduce interference between the audio portion of a television program and a spoken request.

22 (Previously Presented). The method of claim 32 wherein generating responses includes synthesizing spoken responses.

23 (Currently Amended). An article comprising a medium for storing instructions that, if executed, enable a processor-based system to:

operate a state machine having three states including a first state in which the state machine is not listening, a second state in which the state machine is listening for only one query, and a third state in which the state machine is listening for all queries, wherein if the user makes a new utterance while the state machine is in the third state and is working on a previous utterance by the user, the state machine stops working on the user's previous utterance and begins working on the user's new utterance;

provide a spoken command from said listen state machine to a speech recognizer;
and
recognize spoken requests for television program information.

Claims 24 and 25 (Canceled).

26 (Previously Presented). The article of claim 33 further storing instructions that, cause a processor-based system to store an indication when a generated response includes a recognized attribute from the spoken request.

27 (Previously Presented). The article of claim 33 further storing instructions that, if executed, enable a processor-based system to parse a SELECT variable and a WHERE variable from a spoken request.

28 (Previously Presented). The article of claim 33 further storing instructions that cause a processor-based system to store meanings derived from the current and historical request and use the historical request to supplement the meaning derived from said current request.

29 (Previously Presented). The article of claim 33 further storing instructions that cause a processor-based system to parse and store time attributes in a request.

30 (Previously Presented). The article of claim 33 further storing instructions that cause a processor-based system to generate responses to spoken requests by synthesizing spoken responses.

31 (Previously Presented). The system of claim 1 including:
an output device that generates responses to spoken requests for television programming information;
a module coupled to said recognizer to implement conversational speech; and
a graphical user interface which provides information in a visual form about television programming and a voice user interface which responds to voice requests from the

user, said graphical user interface and said voice user interface communicating such that the focus of one of said interfaces is communicated to the other.

32 (Previously Presented). The method of claim 14 including:
generating responses to spoken requests for television programming information;
providing conversational speech recognition; and
providing a graphical user interface which generates information in a visual form about television programming and a voice user interface which responds to voice requests from the user, and communicating the focus of one of said interfaces to the other of said interface.

33 (Previously Presented). The article of claim 23 further storing instructions that, if executed, enable a processor-based system to:
generate responses to spoken requests for television programming information;
provide conversational speech recognition; and
provide a graphical user interface which generates information in a visual form about television programming and a voice user interface which responds to voice request from the user, and to indicate the focus of one of said interfaces to the other of said interfaces.

34 (New). The system of claim 1 wherein said speech recognizer sets a first flag when a speech variable originated from the user's utterance and a second flag when a speech variable has been confirmed audibly to the user.